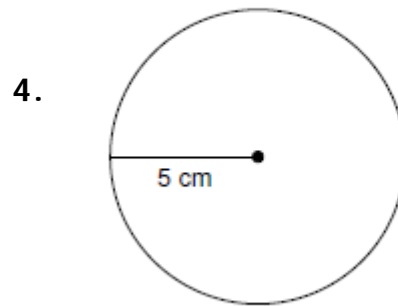
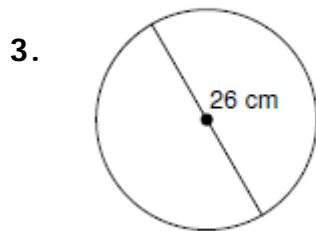
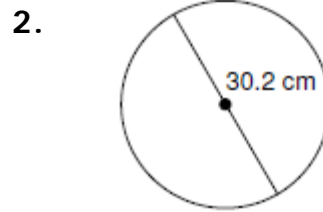
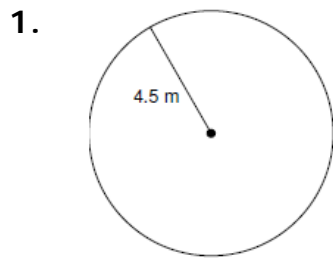


Name \_\_\_\_\_ Period \_\_\_\_\_

**Geometry Unit 10 Worksheet #7 - Circles Area and Circumference**

**Find the area and circumference of the given circles**



5.  $r = 12$

6.  $d = 30$

**Solve the following problems using the proper circumference and area formulas.**

7. If the circumference of a circle is 17.27 decimeters, then what is its diameter?

8. If the area of a circle is 3.14 square inches, then what is its radius?

9. The distance around a bicycle wheel is 6.28 feet. What is its diameter?

10. The area of a CD is 78.5 square centimeters. What is its circumference?

## Circumference and Area of Circles

Circumference is the distance around a circle. Think of it as the circle's perimeter. Find circumference by multiplying the diameter (or twice the length of the radius) by  $\pi$ :

$$C = \pi d \quad \text{OR} \quad C = 2\pi r$$

Area of a circle is found by squaring the length of the radius and then multiplying by  $\pi$ :

$$A = \pi r^2$$

Match the radius with the correct circumference and area. The remaining letters will reveal the inventor of bifocals.

CIRCUMFERENCE		RADIUS		AREA
18 $\pi$ cm		7 cm		9 $\pi$ in. <sup>2</sup>
36 $\pi$ m		18 m		81 $\pi$ cm <sup>2</sup>
12 $\pi$ in.		3 in.		25 $\pi$ ft. <sup>2</sup>
10 $\pi$ ft.		10 ft.		324 $\pi$ m <sup>2</sup>
8 $\pi$ mm		9 cm		4 $\pi$ mm <sup>2</sup>
14 $\pi$ cm		14 m		36 $\pi$ in. <sup>2</sup>
28 $\pi$ m		6 in.		49 $\pi$ cm <sup>2</sup>
6 $\pi$ in.		5 ft.		196 $\pi$ m <sup>2</sup>
4 $\pi$ mm		2 mm		16 $\pi$ mm <sup>2</sup>
20 $\pi$ ft.		4 mm		100 $\pi$ ft. <sup>2</sup>

